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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,977	02/06/2004	Peter H. Raichle	PSEE 200013	7122

27885 7590 04/26/2007
FAY SHARPE LLP
1100 SUPERIOR AVENUE, SEVENTH FLOOR
CLEVELAND, OH 44114

EXAMINER

WILSON, GREGORY A

ART UNIT	PAPER NUMBER
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3749

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/773,977

Applicant(s)

RAICHLE ET AL.

Examiner

Gregory A. Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The amendment filed 2/8/07 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Figure 6 also illustrates in a detailed magnified portion, an optional cover 16 disposed on the sealing ring comprised of sealing segments 10. The cover 16 defines a plurality of apertures 18 adapted to facilitate the removal of debris from the sealing assembly.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11 & 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. These claims recite structure to a cover or guide disposed on the sealing ring

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and furthermore having a plurality of apertures adapted to facilitate the removal of debris, the support for this subject matter can be found on page 8 of the applicants specification wherein the applicant discloses that the cover and/or guide preferably has slits or recesses. This is described as alternative or optional features, but are not clearly described by the specification and are absent from the drawings. These limitations should be positively recited with supporting detail in both the specification and the drawings if they are to be considered an essential part of the applicants invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6-8, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by **Grandcolas et al (4,338,080)**. **Grandcolas et al** discloses a sealing ring assembly for a cylindrical rotary kiln and includes a plurality of sealing segments (7) which are flat band-like sections positioned about the outer surface of the kiln cylinder and positioned such that they are connected to one another by their overlapping adjacent segments (SEE Figures 3 & 4) and are made of heat resistant, lightweight sealing material (SEE column 3, lines 38 – column 4, line 2), at least one application pressure element (SEE column 3, line 10-18) to provide radial application pressure on

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the kiln, the pressure element forms a closed ring by the overlapping segments and is in the form of a spring (17a) serving to connect the sections.

Claims 1, 6, 7 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by **Laubach et al (5,511,795)**. **Laubach et al** discloses a sealing medium seal for the sealing of a rotary drum of a drum-shaped furnace and includes a plurality of sealing segments (1) of flat like overlapping band sections positioned about the outer surface of the drum (SEE Figures 6 & 7) made of elastic, flexible sealing materials, at least one application pressure element (5) positioned on the sealing segments to provide a radial application pressure to secure the segments to the drum. The pressure element (5) is a closed ring (SEE Figures 4 and 6-9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5, 9, 10, 12, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Grandcolas et al (4,338,080)**. **Grandcolas et al** discloses the applicants primary inventive concept as stated above, but with regard to claims 2-5, 9, 12, and 17, does not particularly discuss the properties of the material used or give

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detail of the structure make up of the material used. It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a material to meet the parameters as disclosed by the applicant, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. With regard to claims 10 and 18, Grandcolas et al does not disclose the pressure in which the seal is applying. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the application pressure element exert a pressure of less than 300kN, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Response to Arguments

Applicant's arguments filed 2/8/07 have been fully considered but they are not persuasive. The specification has been objected to because the applicant has introduced new matter into the disclosure. As cited in 37 CFR 1.53c, no new matter may be introduced into an application after its filing date. Applicants arguments as they pertain to the rejection of Grandcolas et al (4,338,080) have been considered but are not persuasive. The applicant argues that Grandcolas et al discloses disadvantages of using its type of sealing for a rotary kiln environment as being that it doesn't provide a uniform radial application pressure on the sealing segments and that leakages can occur at the high number of overlapping joints of the sealing elements, leading to toxic

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gases being emitted in both a radial and an axial direction, furthermore, Grandcolas et al discloses an inflexible and hard surface of graphite segments which is contrary to the flexible and softer carbon fiber segments used in the applicants invention. It is understood by the Examiner that Grandcolas et al ('080) may not provide the same degree of sealing of the applicants invention, but discloses that in an alternative embodiment, the flexible clamping means may be tensioned by other suitable means, this is regarded as a clear teaching to an alternative method of which the application pressure may be applied, however, it is recognized that Grandcolas et al teaches structure which is capable of performing the applicants claimed invention (SEE column 3, lines 10-18). This teaching includes a tensioning of the cable (15) over pulleys (16) by a counterweight (17) which can be designed in such a way as to provide a uniform radial application pressure to secure the sealing segments to the rotary kiln. The applicant argues that this would not offer the same degree of sealing, but fails to claim structure which clearly defines over the prior art, applicant simply claims "at least one application pressure element" which is anticipated by the cable, pulley and counterweight arrangement of the prior art reference. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The Examiner maintains that the cable, pulley, and counterweight arrangement has functionality as an application pressure element capable of providing a uniform radial application pressure upon the sealing segments of a rotary kiln.

With regard to applicants arguments as they pertain to Laubach et al (5,511,795) that Laubach et al does not teach a sealing element suited to being used on a hot operated indirect heated rotary kiln, the Examiner respectfully disagrees. Applicant has noted that in each of the independent claims 1 and 13 the limitation "adapted for use in an indirectly heated rotary tubular kiln" is language that denotes the high thermal stability and high temperature characteristics of the recited sealing assemblies. The Examiner fails to see how this language denotes the environment in which the seal is working under, furthermore the term "adapted" suggests that the seal has been adjusted in some way to accommodate the environmental conditions in which it will operate. While Laubach et al may not be intended to operate under such conditions, it appears structurally capable of doing so. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed and in this case, how well they perform, does not differentiate the claimed apparatus from a prior art apparatus satisfying the structural limitations.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

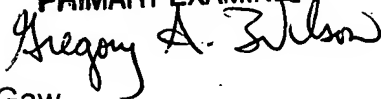
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory A. Wilson whose telephone number is (571)272-4882. The examiner can normally be reached on 7 am - 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Rinehart can be reached on (571) 272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GREGORY WILSON
PRIMARY EXAMINER



Gaw

April 24, 2007